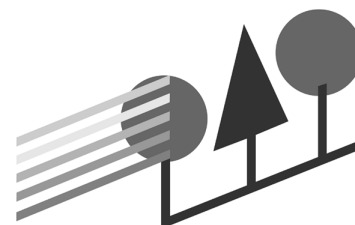


THIRD MCPFE WORKSHOP ON THE IMPROVEMENT  
OF PAN-EUROPEAN INDICATORS FOR SUSTAINABLE  
FOREST MANAGEMENT

14 – 15 January 2002, Budapest, Hungary



MINISTERIAL CONFERENCE ON THE  
PROTECTION OF FORESTS IN EUROPE

**Recommendations with regard to the pan-European  
descriptive indicators for sustainable forest management**

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## 1. Introduction

The pan-European criteria and quantitative indicators for sustainable forest management (SFM) have been adopted at expert level in Geneva in June 1994. However, some aspects of, or conditions for SFM, cannot be illustrated adequately by quantitative indicators alone. Therefore, quantitative indicators have to be complemented by qualitative indicators.

Grouped under the six pan-European criteria, a provisional list of so called “descriptive” indicators for assessing the existence and implementation of policy instruments and to assist in the further development of national criteria and indicators has been accepted for possible use at the Second Expert Level Meeting, held in Antalya, in January 1995. The complete set of quantitative and descriptive pan-European criteria and indicators for SFM was adopted by the ministers responsible for forests in Europe at the Third Ministerial Conference on the Protection of Forests in Europe, in Lisbon 1998, in Resolution L2.

## 2. Current situation

### 2.1 Structure of the descriptive indicators

The descriptive pan-European indicators for SFM relate to the overall policy framework of a country concerning the sustainable management of forests. They are supplementary to the quantitative indicators.

The pan-European set of criteria and indicators for SFM contains 101 descriptive indicators. They provide information on the existence of forest policy instruments including legal/regulatory framework, institutional framework, economic policy framework and financial instruments. Additionally, descriptive indicators provide informational means to implement the policy framework and the extent to which these instruments support and enhance the achievement of SFM. Table 1 describes the four principle policy areas and the appropriate instruments.

**Table 1:** Policy areas and the appropriate instruments (Interim Report, 1995).

<b>Policy area</b>	<b>Instruments</b>
<b>Legal/ regulatory frameworks</b>	Comprise legal regulations (prohibitions, permissions and obligations) in the form of laws and decrees. They are passed by the parliament or councils of state and are binding. For simplicity, provision of infrastructure by the state is also included here.
<b>Institutional frameworks</b>	Include various legal and institutional arrangements for dealing with issues in question. These arrangements include e.g. the revision of action programmes, agreements, linking the activities of different organisations, enterprises and scientific communities, international co-operation or funds. The capacity of an institutional framework guarantees the efficiency of the legal/ regulatory framework, economic policy framework and financial instruments as well as informational means used.
<b>Financial instruments</b>	Monetary transfers by the state for certain modes of behaviour instead of market services. They comprise financial incentives for various purposes, financial disincentives (taxes) and licenses.
<b>Economic policy framework</b>	Contains also those activities related to the market mechanisms which are not covered by financial incentives.

<b>Informational means</b>	Are based on the implication of information. They aim at convincing the respondents. There are many informational instruments, such as non-legally binding guidelines, land-use planning, statistical surveys, public relations, research and rewards. Further examples are e.g. education, extension service, or public participation.
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Currently the descriptive indicators refer to concept areas within each of the criteria, with the exception of criterion 2 (see overview in Annex 1). A list of the 101 pan-European descriptive indicators is presented in Annex 2.

## **2.2 Use of the descriptive indicators in reporting**

Information on the policy instruments for SFM has been reported by 35 MCPFE countries at the Third Ministerial Conference in Lisbon in 1998. In the Special Report on the Follow-up on the Implementation of Resolutions H1 and H2 of the Helsinki Ministerial Conference (1998) MCPFE countries described *“general measures to promote sustainable forest management, including the conservation of biological diversity”* under the headings of the four policy areas. However, extent and quality of the information provided varied considerably and only a very limited use has been made of the descriptive indicators for this purpose.

The experiences gained in reporting so far indicate a considerable scope for improvement concerning the degree of application of descriptive indicators and the consistency of reporting on these indicators. Therefore, in the following proposals for improvement are made as basis for discussion.

## **3. Proposal for changed wording: descriptive → qualitative indicator**

Within the international environmental and also sustainability indicator discussion descriptive indicators describe the actual situation in contrast to normative indicators which refer to eco-political targets. In the international debate descriptive as well as normative indicators are based on quantitative data. Descriptive indicators of the MCPFE, however, refer to qualitative information. Descriptive indicators should therefore be named “qualitative indicators” in order to be in line with international systems and to avoid confusion. In this context the Montreal Process, for instance, also uses this term.

## **4. Revision of the qualitative/descriptive indicators**

Reporting on SFM within the MCPFE so far indicated that very limited use has been made of the existing set of qualitative/descriptive indicators. In order to enhance the application of the qualitative/descriptive indicators and in line with the commitment made by the ministers to *“proceed to implement, continuously review and further improve the associated indicators”* (Resolution L2), options for improvement should be considered. In this context three different aspects should be discussed:

- Possible contents of the qualitative/descriptive indicators
- Possible levels of detail of the qualitative/descriptive indicators
- Possible reference levels of the qualitative/descriptive indicators

As a guidance for the discussion the following evaluation criteria for indicators could be used<sup>1</sup>:

- Political relevance for MCPFE and other initiatives
- Visible significance
- Data availability
- Cost-effectiveness
- Technical feasibility
- Reliability
- Validity

#### **4.1 Topics for discussion**

##### **➤ Possible contents of the qualitative/descriptive indicators**

Presently, the qualitative/descriptive indicators provide information on the existence of institutions and the use of policy instruments to implement the policy framework, and the extent to which these instruments support and enhance the achievement of SFM. As mentioned before, the information provided is generally structured into:

- legal/ regulatory framework,
- institutional framework,
- economic policy framework and financial instruments,
- informational means

The structure outlined above constitutes one possible approach to collect information on policies related to SFM. It might be useful to discuss whether this structure is the most appropriate for the qualitative/descriptive indicators for SFM or whether it should be changed.

##### **➤ Possible levels of detail of the qualitative/descriptive indicators**

Currently, the descriptive indicators outline in detail the information specified under each concept area within individual criteria. To give an example, the concept area "*land use and forest area*" is covered by the following six indicators:

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<sup>1</sup> These evaluation criteria have already been used for the evaluation of the quantitative indicators at the First MCPFE Workshop on the Improvement of Pan-European Indicators for Sustainable Forest Management in March 2001 in Triesenberg, Liechtenstein.

Examples of descriptive indicators:

Criterion 1 (Forest Resources)

Concept area: land use and forest area

1. Existence of a legal / regulatory framework, and the extent to which it:
  - maintains forest resources and prevents forest degradation;
  - clarifies property rights and provides for appropriate land tenure arrangements
2. Existence and capacity of an institutional framework to:
  - carry out integration between land-use planning and forest management
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - supports mechanisms promoting integration between land-use planning and forest management planning
4. Existence of informational means to implement the policy framework, and the capacity to:
  - conduct and apply management guidelines for land-use planning in relation to forest resources
  - enhance conversion of agricultural and other treeless land to forest land by afforestation

The example shows that policy instruments are used as a general frame, and detailed indicators are formulated for each of the various aspects of interest.

It might be useful to discuss whether this level of detail is considered adequate and practical, or if it should be changed, e.g. by using the general frame only, without specifying further details. This might help to improve the interest of the MCPFE countries and other users to actually adopt and use the qualitative/descriptive indicators in practice.

#### ➤ **Possible reference levels of the qualitative/descriptive indicators**

At present, the qualitative/descriptive indicators for SFM refer to concept areas within the criteria. Alternatively, descriptive indicators could refer directly to SFM and describe policies related to SFM in general. They can also refer to policies related to each of the six criteria.

The current structure and level of detail has the advantage of enabling very detailed reporting. However, practice has shown that countries are in many cases not prepared to fulfil the resulting reporting burden.

## **4.2. Options for improvement**

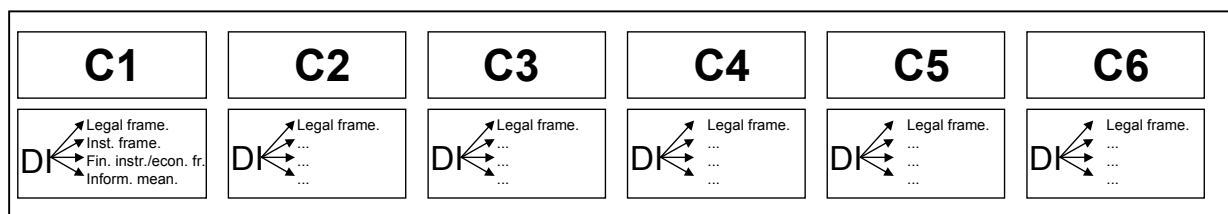
The following options might be discussed to clarify the optimal reference level for the qualitative/descriptive indicators of the pan-European set of criteria and indicators for SFM.

#### ➤ **Option 1: Maintain existing reference basis – but increase practicability**

If qualitative/descriptive indicators should refer to concept areas, as done so far, it might be useful to discuss possibilities to increase practicability and feasibility of their application. This might be done by reducing the level of detail, as outlined above. However, the risk that more generalised indicators are possibly too unspecific, has to be kept in mind.

➤ **Option 2: Use pan-European criteria as reference basis – and increase practicability**

This option proposes that the qualitative/descriptive indicators relate directly to criteria. This would implicate that countries and users of the indicators report on policies related to each of the topics covered by the respective pan-European criterion, as presented in Figure 1.



**Figure 1:** Qualitative/descriptive indicators referring to criteria

Such an approach would reduce the number of qualitative/descriptive indicators. However, the possibility that a reduced number of qualitative/descriptive indicators might be too unspecific has to be considered. Also in this option it might be useful to discuss possibilities to increase the practicability and feasibility of the application of the qualitative/descriptive indicators.

➤ **Option 3: Use SFM as reference basis – and increase practicability**

In this option the qualitative/descriptive indicators relate to SFM as a whole. Countries and users of the qualitative/descriptive indicators report on policies related to SFM in general, possibly outlining:

- changes in policies related to SFM and
- the rationale for these changes.

The changes in policies related to SFM could be described in more detail using the institutional framework and the policy instruments:

- legal/ regulatory framework (including international commitments)
- economic policy framework and financial instruments
- informational means

### 4.3 Discussion on concept areas

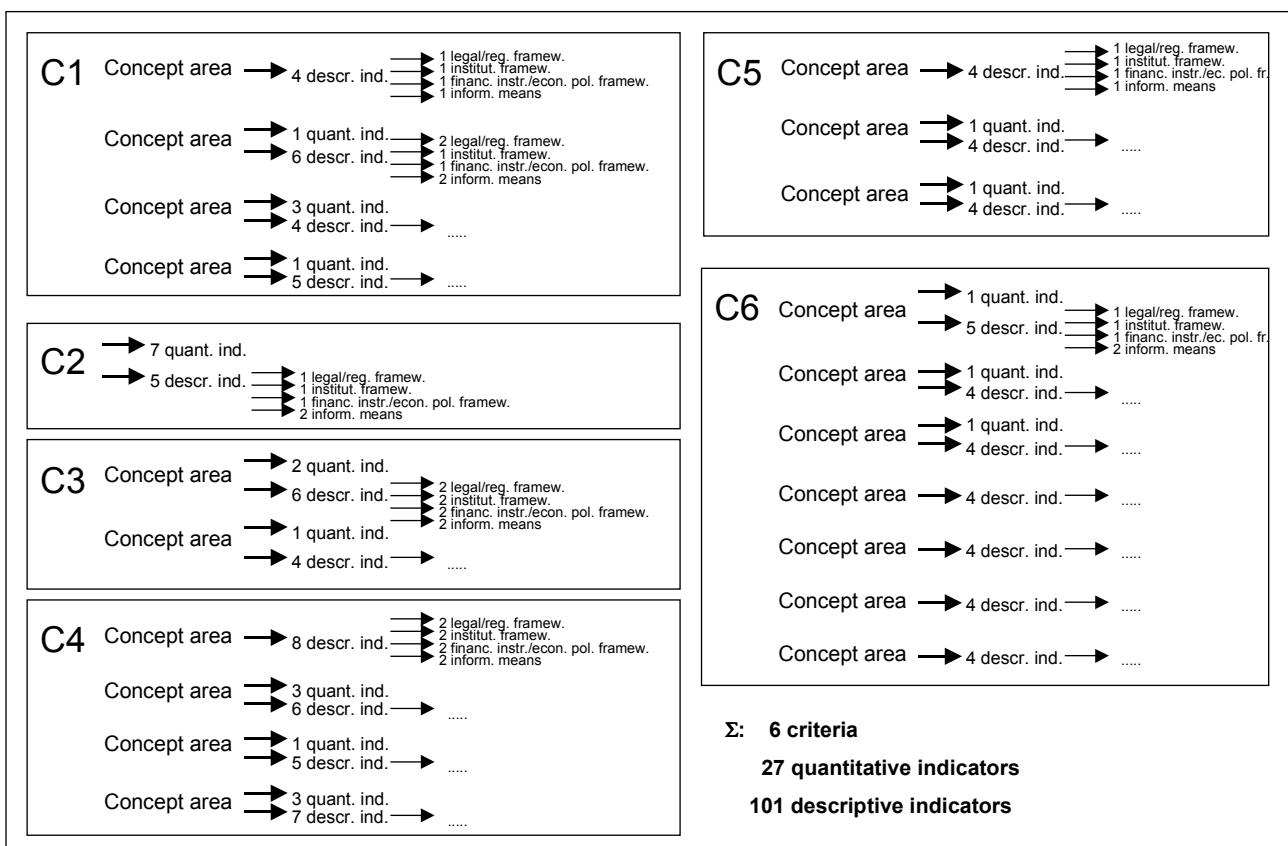
In the current set of criteria and indicators for SFM concept areas are used to structure both, the quantitative and qualitative/descriptive indicators thematically. However, the use of concept areas is inconsistent: Criterion 2 has no concept area, some concept areas do not have corresponding quantitative indicators (see also Annex 1). Therefore, with regard to the three proposed options, the usefulness of concept areas might be discussed. If concept areas should be maintained, they have to be completed under criterion 2.

## 5. References

- Follow-up Reports on the Ministerial Conferences on the Protection of Forests in Europe. Volume II. Sustainable Forest Management in Europe. Special Report on the Follow-up on the Implementation of Resolutions H1 and H2 of the Helsinki Ministerial Conference. 1998. Ministry of Agriculture, Rural Development and Fisheries of Portugal.
- Interim Report on the Follow-up of the Second Ministerial Conference - Rapport Provisoire sur le Suivi de la 2<sup>ème</sup> Conférence Ministérielle. 1995. Ministerial Conference on the Protection of Forests in Europe, 16-17 June 1993 in Helsinki. Ministry of Agriculture and Forestry of Finland.

## Annex 1

### Present structure of the pan-European criteria, concept areas, quantitative and descriptive indicators for sustainable forest management



## **Annex 2**

### **Descriptive pan-European indicators for SFM as adopted by the Ministers responsible for forests in Europe at the Third Ministerial Conference on the Protection of Forests in Europe, in Lisbon 1998, in Resolution L2**

#### ***C 1 (Forest Resources)***

Concept area: general capacity

##### **Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides an overall policy framework for conservation and sustainable management of forests
2. Existence and capacity of an institutional framework to:
  - provide guidelines for national plans or programmes
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - permits the flow of capital in and out of the forest sector in response to market signals and public policy decisions
4. Existence of informational means to implement the policy framework, and the capacity to:
  - recognise the full range of forest values and potentials with periodic forest-related planning and assessment of national forest resources

Concept area: land use and forest area

##### **Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - maintains forest resources and prevents forest degradation;
  - clarifies property rights and provides for appropriate land tenure arrangements
2. Existence and capacity of an institutional framework to:
  - carry out integration between land-use planning and forest management
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - supports mechanisms promoting integration between land-use planning and forest management planning
4. Existence of informational means to implement the policy framework, and the capacity to:
  - conduct and apply management guidelines for land-use planning in relation to forest resources
  - enhance conversion of agricultural and other treeless land to forest land by afforestation



Concept area: growing stock

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - supports sustainable management while increasing the growing stock of both merchantable and non-merchantable tree species on forest land available for timber production
2. Existence and capacity of an institutional framework to:
  - undertake and develop regular assessment of forest resources
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - provides appropriate incentives to support forest policy aiming at bigger growing stock
4. Existence of informational means to implement the policy framework, and the capacity to:
  - improve execution of forest resources assessment by acknowledged research institution or other similar organisations

Concept area: carbon balance

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - clarifies policies for enhancing the use of forest products for energy
2. Existence and capacity of an institutional framework to:
  - develop programmes for enhancing the use of forest products for energy
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - provides subventions for the use of wood for energy
4. Existence of informational means to implement the policy framework, and the capacity to:
  - enhance studies on the length of the life cycle of wood products
  - enhance effectively organised collection of waste paper

**C 2 (Health and Vitality)**

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - enforces laws and policies related to maintaining forest health and vitality
2. Existence and capacity of an institutional framework to:
  - develop mechanisms for controlling the occurrence of serious damages / damage agents
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - creates appropriate incentives to prevent extreme disruption of ecological processes
4. Existence of informational means to implement the policy framework, and the capacity to:
  - strengthen regular field monitoring on forest health status and inventories of soil acidification and to
  - prevent serious damage caused by machinery and forestry operations: compaction of soil, injuries into standing trees, etc.

### **C 3 (Productive Functions)**

Concept area: wood production

#### **Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - encourages forest owners to practice environmentally sound forestry based on a forest management plan or equivalent guidelines
2. Existence and capacity of an institutional framework to:
  - develop institutions and mechanisms advocating economic, environmental and social factors as essential elements in wood production and to
  - develop and maintain efficient physical infrastructure to facilitate the delivery of forest products and services
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - supports investment and taxation policies which recognise the long-term nature of investments in forestry and
  - supports non-discriminatory trade policies for forest products
4. Existence of informational means to implement the policy framework, and the capacity to:
  - improve technologies and plans based on proper forest inventories

Concept area: non-wood products

#### **Descriptive indicators (examples):**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides legal instruments to regulate forest management practices for recreation and the harvesting of important non-wood forest products
2. Existence and capacity of an institutional framework to:
  - support appropriate organisations for extension services on non-wood benefits
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - enables the implementation of guidelines for management of non-wood benefits
4. Existence of informational means to implement the policy framework, and the capacity to:
  - develop management plans for non-wood benefits

### **C 4 (Biodiversity)**

*Concept area: general conditions*

#### **Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - clarifies the concept of management, conservation and sustainable development of forest and
  - provides for national adherence to international legal instruments
2. Existence and capacity of an institutional framework to:
  - maintain, conserve and appropriately enhance biological diversity at the ecosystem, species and genetic levels and

- identify economic value in forests whose management is adjusted in favour of maintaining biological diversity
3. Existence of economic policy framework and financial instruments, and the extent to which it:
    - creates new resources and incentives to enhance the mechanisms for predicting impacts of human interventions on forests
    - supports economic value in forests whose management is adjusted in favour of maintaining biological diversity
  4. Existence of informational means to implement the policy framework, and the capacity to:
    - develop new inventories and ecological impact assessments on biological diversity and
    - develop tools to assess the effects of forest management on biological diversity

Concept area: representative, rare and vulnerable forest ecosystems

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides for legal instruments to protect representative, rare or vulnerable forest ecosystems
2. Existence and capacity of an institutional framework to:
  - develop and maintain institutional capacity and distribution of responsibilities related to protected areas and
  - maintain degree of implementation of confirmed national forest conservation programmes
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - supports the representativeness of protected forests in relation to ecological and regional distribution
4. Existence of informational means to implement the policy framework, and the capacity to:
  - enhance measures to re-establish the endemic biological diversity in forests managed for production and
  - apply measures for rehabilitation of degraded forest areas

Concept area: threatened species

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides for legal instruments to protect threatened species
2. Existence and capacity of an institutional framework to:
  - develop and maintain institutional instruments to protect threatened species
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - supports implementation of management guidelines to take into account threatened species
4. Existence of informational means to implement the policy framework, and the capacity to:
  - construct periodically reviewed lists of threatened forest species and
  - enhance level of knowledge on threatened species / assessments, inventories or research on threatened species

Concept area: biological diversity in production forests

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides for legal instruments to ensure regeneration of managed forests
2. Existence and capacity of an institutional framework to:
  - develop and maintain institutional instruments to ensure regeneration of managed forests and
  - conduct inventories on proportion of area covered by trees significantly older than the acceptable age of exploitation currently used
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - provides for economic incentives for taking account of environmental issues in management planning and
  - conducts inventories / assessments on bioindicators
4. Existence of informational means to implement the policy framework, and the capacity to:
  - take measures to maintain or to re-establish biological diversity in old forests and
  - monitor changes in the proportions of afforested or reforested areas covered by indigenous and introduced species, conifer and deciduous species

**C 5 (Protective Functions)**

Concept area: general protection

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides for legal instruments to regulate or limit forest management practices in forests protected for infrastructure / protection forests
2. Existence and capacity of an institutional framework to:
  - develop and maintain institutional instruments to regulate or limit forest management practices in forests protected for infrastructure / protection forests
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - supports the preparation of management guidelines for infrastructure and protection forests
4. Existence of informational means to implement the policy framework, and the capacity to:
  - conduct research on infrastructure and protection forests in relation to land use practices / forest management

Concept area: soil erosion

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides for legal instruments to regulate or limit forest management practices in areas with vulnerable soils
2. Existence and capacity of an institutional framework to:
  - strengthen institutional instruments to regulate or limit forest management practices in areas with vulnerable soils
3. Existence of economic policy framework and financial instruments, and the extent to which it:

- supports the preparation of management guidelines for areas with vulnerable soils
4. Existence of informational means to implement the policy framework, and the capacity to:
- conduct inventories and research on soil erosion

Concept area: water conservation in forests

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides for legal instruments to regulate or limit forest management practices in favour of water conservation or protection of water resources
2. Existence and capacity of an institutional framework to:
  - develop and maintain institutional instruments to regulate or limit forest management practices in favour of water conservation or protection of water resources
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - supports the preparation of management guidelines for taking into consideration water conservation in forest management practices
4. Existence of informational means to implement the policy framework, and the capacity to:
  - conduct inventories and research on water quality and flow characteristics in relation to land use practices / forest management

**C 6 (Socio-economic Functions)**

Concept area: significance of the forest sector

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides for legal instruments to ensure development of the forest sector
2. Existence and capacity of an institutional framework to:
  - develop and maintain efficient physical infrastructure to facilitate the supply of forest products
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - ensures new investments in the forest sector to meet future demands
4. Existence of informational means to implement the policy framework, and the capacity to:
  - develop and put into practice new improved technology and
  - conduct market analysis to better fulfil the needs of society

Concept area: recreational services

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - recognises customary and traditional rights of indigenous people, and provides means of resolving access disputes
2. Existence and capacity of an institutional framework to:
  - undertake planning and assessment in recreational services on forestry

3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - supports forestry constituencies to conserve special environmental, cultural, social and scientific values in relation to recreational services
4. Existence of informational means to implement the policy framework, and the capacity to:
  - conduct assessment on recreation

Concept area: provision of employment

**Descriptive indicators :**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides for legal instruments for securing income levels in forest sector
2. Existence and capacity of an institutional framework to:
  - develop and maintain human resource skills in all relevant tasks
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - supports programmes to ensure employment in rural areas in relation to forestry
4. Existence of informational means to implement the policy framework, and the capacity to:
  - secure a fair share of income from non-wood products coming from rural sources of income

Concept area: research and professional education

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides for national programmes for research and professional education
2. Existence and capacity of an institutional framework to :
  - develop and maintain institutional instruments to enhance forest related research and education
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - provides public and private funding for research, educational and extension programmes
4. Existence of informational means to implement the policy framework, and the capacity to:
  - guarantee a sufficient number of people educated at different levels of forestry and cross-cutting field of education

Concept area: public awareness

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides opportunities for public access to information
2. Existence and capacity of an institutional framework to:
  - strengthen organisations to provide extension services for general public
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - guarantees that part of forest revenues are reinvested in informing the public about forests
4. Existence of informational means to implement the policy framework, and the capacity to:
  - support teaching and informing of environmental issues and other forestry related subjects

Concept area: public participation

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides opportunities for public participation in public policy and decision making on forests
2. Existence and capacity of an institutional framework to:
  - enforce institutional mechanisms for the involvement of local people and NGOs in decision-making
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - attracts public outreach and preparatory planning
4. Existence of informational means to implement the policy framework, and the capacity to:
  - enhance public participation in decision-making processes related to implementation of forest policy

Concept area: cultural values

**Descriptive indicators:**

1. Existence of a legal / regulatory framework, and the extent to which it:
  - provides for programmes and management guidelines which recognise cultural heritage in relation to forestry
2. Existence and capacity of an institutional framework to:
  - develop and maintain programmes to conserve culturally valuable sites and landscapes
3. Existence of economic policy framework and financial instruments, and the extent to which it:
  - provides for sufficient financial incentives for acknowledgement of cultural values in forest management planning
4. Existence of informational means to implement the policy framework, and the capacity to:
  - conduct studies on proportion of culturally valuable sites and sites with special visual value